

Work Order ID 60987

August 3, 2010 2:56:44 PM



Page 1

Item ID: D350-636-011

Accept



Setup Start



Revision ID:

Item Name: Skidtube LH

Stop



Start Date: 8/03/10 Start Qty: 1.00



Cust Item ID:

Required Date: 8/12/10 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: MDate: 10-8-08 Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start



Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool # Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D2750

Rev F

100

0.00



DOCUMENT CONTROL

DC

0.00

Document Control

Memo

Photocopy blue file and type labels per PPP D350-636-011 CHG 005

S10/08/14

JF CL 10/08/10

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector	
			Initial Chief Eng	Action Description Chief Eng	Sign & Date				

NOTE: Date & initial all entries

Work Order ID 60987

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Page 2

Item ID: D350-636-011

Accept

Setup Start

Revision ID:

Stop

Item Name: Skidtube LH

Start Date: 8/03/10 Start Qty: 1.00

Required Date: 8/12/10 Req'd Qty: 1.00

Cust Item ID:

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool # Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

110



Skidtubes

Skidtubes

0.00

0.00

Memo

1- Pick D2600-3 Bent

2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside AFT end per dwg D2750

3- Drill pilot holes for blade fitting bolt holes using DT8983. Open to 0.500", deburr.

4- Locate DT8330 off of blade fitting bolt holes and drill pilot holes for blade fitting

5- Drill fwd step holes using DT9616. Ensure proper positioning.

6- Drill pilot holes as per Dwg D2750 sheet 4 (D2750-1 details). Drill using drill Jig DT8150 & DT8863A for first side only DT8863B for second side (detail B)
ONLY DRILL ONE SIDE OF FWD SADDLE HOLES USING DT81507- Clecko DT8863B on second side of tube and drill pilot holes for detail B.
SECOND SIDE

8- Clecko DT9642 and drill fwd saddle holes on second side, ensure proper positioning.

9-Open up holes for Detail B to 0.375" (4 holes per side) and blade fitting location holes to 0.500" (total of 4 holes per side) as per dwg D2750. Open up holes for ground handling and detail C to 0.500" (8 holes per side)

10-Drill pilot holes for wearplates as per Dwg D2750 using DT8108 open to

10-8-3

(P70)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D350-636-011 PAR #: _____ Fault Category: Skid tubes NCR: Yes No DQA: _____ Date: 1008-03
 Resolution: Scrap Disposition: Scrap QA: N/C Closed: _____ Date: 10/08/11

NCR: 60987		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
10-08-03	100-3	Tube was supposed to be drilled as a LH, but was accidentally drilled as a RH at the aft saddle locations, & a LH & RH at the FWD saddle locations R.C. LOA.		Jig is clearly identified. QA feels uncomfortable welding all 12 affected saddle holes for rework since it is at the saddle & load locations.	 10-8-3	S 10/08/10	 RS1042	 1008-03
				Scrap & replace the tube Qty 1: B <u>59410</u>	 10-8-3	S 10/08/10	 RS1042	 1008-03

NOTE: Date & initial all entries

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Start Date: 8/03/10 Start Qty: 1.00



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Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

0.297"

11-Open up holes of Detail A to 0.297" (total of 2 holes per side)

12-Weld D2744 Cap as per Dwg D2750 and QSI 004. Fill grooves in bend left from bending as per QSI 004

A/R Aluminum Rod batch: ☐ M114242

13-Grind welds flush as per Dwg D2750

BE 10/08/10 BE 10/08/05

> DP 10-8-3

120



QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

0.00

Memo

0.00

8 10/08/10

130



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

8 10/08/10

40

W/O:		WORK ORDER CHANGES					
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Start Date: 8/03/10 Start Qty: 1.00



Cust Item ID:

Required Date: 8/12/10 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool # Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

140

Chemical Conversion Coat per QSI005 4.1

0.00

10-8-10

HandFinish

Memo

Hand Finishing

150

QC3- Inspect Part Finish

0.00

RE 10/08/10

QC

Memo

Quality Control

W/O:		WORK ORDER CHANGES						
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Required Date: 8/12/10 Req'd Qty: 1.00

Customer:


Reference:

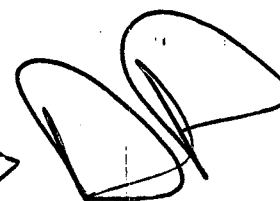
Run Start

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160  Skidtubes	Skidtubes	0.00							
Skidtubes	Memo 1-Open up holes of Detail C and ground handling to 0.625" (total of 8 holes per side) as per dwg D2750. 2-Open up holes of Detail B to 0.750" (total of 4 holes per side) as per dwg D2750. 3- Open float hole to 0.500" (4 per side) 4-Chamfer holes of Detail B, C, ground handling and float holes per dwg D2750 (welding instructions on sheet 8) 5-Deburr and blow out all chips from inside of tube 6- Prepare tube for welding, remove alodine as required. 7-Bond web D2739 in place as per QSI 015 A/R <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Sikaflex-291 batch: <u>M115114</u> exp. date: <u>10-01-30</u> 8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D2750 & QSI004 (welding instructions on sheet 8) A/R <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Aluminum Rod batch: <u>M114242</u> 9- At section AJ-AJ drill out x-bolt spacer to 0.404" 10-Grind welds flush as per Dwg D2750	0.00							



10-8-10

BE 10-8-11

BE 10-8-11

BE 10-8-11

W/O:		WORK ORDER CHANGES					
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Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube LH

Start Date: 8/03/10 Start Qty: 1.00



Cust Item ID:

Required Date: 8/12/10 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool # Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp11-Spot face ground handling holes section (total of 4 places per side) as per
dwg D2750

BE 10/08/11

12-Deburr holes

BE 02/08/11

170

QC10- Inspect visual per QSI004- ground welds

0.00

81060811



QC

Memo

0.00

Quality Control

180

QC5- Inspect part completeness to step on W/O

0.00

81060811



QC

Memo

0.00

Quality Control

(H)

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

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Work Order ID 60987

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Item ID: D350-636-011

Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube LH

Start Date: 8/03/10 Start Qty: 1.00



Cust Item ID:

Required Date: 8/12/10 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Stop



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

190



HandFinish

Hand Finishing

Pressure Wash per QSI005 4.3

0.00

=> M

10/08/11

1

Ø

Memo

0.00

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.

200



Powdercoat

Powder Coating

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

=> M

10/08/11

1

Ø

Memo

0.00

START TIME: 11:00AM
OVEN TEMPERATURE: 320°F
FINISH TIME: 11:30AM

210



QC

Quality Control

QC3- Inspect Part Finish

0.00

Memo

0.00

Inspect for foreign object per QSI 024

M

10

08

11

(1)

W/O:		WORK ORDER CHANGES						
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Work Order ID 60987

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Setup Start



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Required Date: 8/12/10 Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool # Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

220



HandFinish

HandFinishing

0.00

Memo

0.00

Hand Finishing

1- Install inserts as per Dwg D2750

ml 10 08 11 ①

230



HandFinish

HandFinishing

0.00

Memo

0.00

Hand Finishing

1-Inspect for Foreign Objects

ml 10 08 11 ①

~~2-Spray inside of tube with "I PS 3" batch:~~

N/A

3-Install blade fitting D3488-041, wearshoes and ground handling hardware as per dwg D2750

SIKA FLEX 241

BATCH: 115-114

EXP DATE: 11/01

4-assemble o-ring to plug as per dwg D3492 and apply o-ring lube

A/R 55-o-ring lube batch: 114189

5-Coat all exposed fasteners with "LPS Procyon" batch: 114596

W/O:		WORK ORDER CHANGES					
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Required Date: 8/12/10 Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

240

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

250

Pick Kit

0.00



Packaging

Memo

0.00

Packaging

260

QC4- 100% Inspect kits for completeness

0.00



QC

Memo

0.00

Quality Control

*****ensure antiseize is on AN8C21A bolts*****

8/10/08/11

(41)

8/10/10 SP

8/10/08/11

(41)

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

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Work Order ID 60987

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Item ID: D350-636-011

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Start Date: 8/03/10 Start Qty: 1.00

Cust Item ID:

Required Date: 8/12/10 Req'd Qty: 1.00

Customer:

Reference:

Run Start

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool # Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

270



Packaging

Packaging

Packaging

Lbc 72

Memo

Package as per PPP D350-636-011

0.00

0.00

Rev #

10/8/11

280



QC

Quality Control

QC21- Final Inspection - Work Order Release

Memo

0.00

0.00

10/08/11

mf 10-8-11

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Picklist Print

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Page 1

Work-Order ID: 60987

Parent Item: D350-636-011

Parent Item Name: Skidtube LH



Start Date: 8/03/10

Required Date: 8/12/10

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev: I 02.09.25 Rearranged procedure steps KJ
 IPP Rev: J 06-03-23 As per Rev D JLM
 IPP Rev: K 06-07-13 As per dsi9343 EC
 IPP Rev: L 07-07-28 Added SS Wearplates (Rev E) JLM Verified By: EC
 IPP Rev: M 08-04-22 update steps 4, 13 DD verified by: EC
 IPP Rev: N 08-09-23 revF as per dwg DD verified by: ec
 IPP Rev: O 09-02-06 apply antiseize on AN8C21A bolts as per PAR09-010
 DD verified by: EC IPP Rev: P 10.06.22
 revise seq110 DD ver: EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	----------------	--------------	---------------	----------------	--------

D2594-3

Manufactured

No

230

Each

379.0000

8

8



O-Ring, 205 Skidtube

Location

Loc Qty

Loc Code

FP

379

55546

19

58191

12

59358

348

D2744

Manufactured

No

110

Each

38.0000

1

1



Cap

Location

Loc Qty

Loc Code

LG

38

51922

2

59198

36

D2600-3-BENT

Manufactured

No

110

Each

16.0000

1

1



Extrusion Bent

Location

Loc Qty

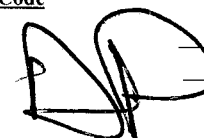
Loc Code

LG

16

59410

16



10-8-3

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

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Picklist Print

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Work Order ID: 60987

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

D2743 Manufactured No 160 Each



Crossbolt Spacer

Location	Loc Qty
LG	299
50281	10
57953	2
59111	287

D2739 Manufactured No 160 Each



350 I Beam

Location	Loc Qty
LG	1
59406	1
	160

D3490-3 Manufactured No 160 Each



Cross Bolt Spacer

Location	Loc Qty
LG	54
59229	14
60294	40

D3490-1 Manufactured No 160 Each



Cross Bolt Spacer

Location	Loc Qty
LG	19
59424	19

Start Date: 8/03/10

Required Date: 8/12/10

Start Qty: 1.00

Required Qty: 1.00

299.0000 8 8



Loc Code

1.0000



Loc Code

54.0000



Loc Code

19.0000



Loc Code

8

BE 10-8-11

1

DP 10-8-10

4 4

4

BE 10-08-10

4

4

BE 10-8-11

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Shop Packet Print

Page 2

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Parent Item: D350-636-011



Parent Item Name: Skidtube LH

Start Date: 8/03/10

Required Date: 8/12/10

Start Qty: 1.00

Required Qty: 1.00

ALS4-1032-225 Purchased No 220 Each

5,957.000 38 38



Insert

Location	Loc Qty
PK011	5957
110768	5957

Loc Code

ml 10.08.11

D3492-041 Manufactured No 230 Each

93.0000 8 8



Plug Assembly

Location	Loc Qty
FP013	93
59114	24
59420	69

Loc Code

ml 10.08.11

D3793-3 Manufactured No 230 Each

13.0000 1 1



Wearshoe

Location	Loc Qty
FP18	12
59631	12
FP19	1
57947	1

Loc Code

ml 10.08.11

AN8C35A Purchased No 230 Each

58.0000 1 1



BOLT

Location	Loc Qty
FP	1
110847	1
ST346	57
114442	27
115188	30

Loc Code

ml 10.08.11

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Shop Packet Print

Page 3

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NOTE: Date & initial all entries

Picklist Print

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Page 4

Work Order ID: 60987

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

D3793-1 Manufactured No 230 Each 15.0000 1 1
Wearshoe

Location	Loc Qty
FP18	15
59151	2
59630	13

D3488-041 Manufactured No 230 Each 18.0000 1 1
Blade Fitting Assembly, LH

Location	Loc Qty
FP	11
53915	11
FP007	7
56052	7

D3794-3 Manufactured No 230 Each 24.0000 1 1
Gasket

Location	Loc Qty
FP10	12
60826	12
FP18	12
56066	11
59153	1

Start Date: 8/03/10

Required Date: 8/12/10

Start Qty: 1.00

Required Qty: 1.00

Loc Code

Loc Code

Loc Code

Loc Code

MA 10-08-11

MA 10-08-11

MA 10-08-11

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Page 4

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 5

Work Order ID: 60987

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

AN6C44A Purchased No 230 Each



BOLT

Location	Loc Qty
FG	2
103964	2
ST344	175
111649	2
114653	1
114784	47
114941	75
115030	50

MS21083C8 Purchased No 230 Each



NUT

Location	Loc Qty
ST303	58
113845	7
114934	51

D3536-25 Manufactured No 230 Each



Gasket

Location	Loc Qty
FPI2	29
58820	5
59625	24

Start Date: 8/03/10

Required Date: 8/12/10

Start Qty: 1.00

Required Qty: 1.00

177.0000 4 4



Loc Code

mt 10.08.11

58.0000 1 1



Loc Code

mt 10.08.11

29.0000 1 1



Loc Code

mt 10.08.11

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Page 5

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 6

Work Order ID: 60987

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

D3631-1 Manufactured No 230 Each



Washer

Location	Loc Qty
ST072	297
60755	297
ST076	274
52693	206
54388	68

D3791-1 Manufactured No 230 Each



Wearplate

Location	Loc Qty
FP17	20
58573	11
59626	9

AN960C10L NAS1149C0332 Purchased No 230 Each



washer

☆ B# 115000

Location	Loc Qty
ST245	29
107534	29

D2745 Manufactured No 230 Each



Bushing

Location	Loc Qty
ST023	169
52311	5
59112	164

Start Date: 8/03/10

Required Date: 8/12/10

Start Qty: 1.00

Required Qty: 1.00

571.0000 8 8



Loc Code

ml 10-08-11

20.0000 1 1



Loc Code

ml 10-08-11

29.0000 38 38



Loc Code

ml 10-08-11

169.0000 8 8



Loc Code

ml 10-08-11

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Page 6

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 7

Work Order ID: 60987

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

AN3C5A Purchased No 230 Each



Bolt

Location	Loc Qty
ST350	1354
114330	11
115015	743
115108	300
115316	300
ST351	10
113121	10

D3537-1 Manufactured No 230 Each



Wearpad

Location	Loc Qty
FP	1
55465	1
FP17	12
57713	3
59593	9

AN960C816L Purchased No 230 Each



WASHER

Location	Loc Qty
ST348	23
110584	20
111424	3

Start Date: 8/03/10

Required Date: 8/12/10

Start Qty: 1.00

Required Qty: 1.00

1,364.000 34 34



Loc Code

ml 10.08.11

13.0000 3 3



Loc Code

ml 10.08.11

23.0000 1 1



Loc Code

ml 10.08.11

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Page 7

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 8

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Work Order ID: 60987

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

D3492-043 Manufactured No 230 Each



Plug Assembly

Location	Loc Qty
FP	2
54682	2
FP013	49
59117	1
59190	4
59421	14
60712	30

AN3C6A Purchased No 230 Each



BOLT

Location	Loc Qty
ST351	425
111982	425

NAS1611-013 Purchased No 230 Each



O-RING

Location	Loc Qty
FP	67
114451	51
114496	16

D3535-25 Manufactured No 230 Each



Wearshoe

Location	Loc Qty
FP18	24
59623	24

Start Date: 8/03/10

Required Date: 8/12/10

Start Qty: 1.00

Required Qty: 1.00

51.0000 8 8



Loc Code

ml 10.08.11

425.0000 4 4



Loc Code

ml 10.08.11

67.0000 8 8



Loc Code

ml 10.08.11

24.0000 1 1



Loc Code

ml 10.08.11

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Page 8

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 9

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Work-Order ID: 60987

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

D3794-1 Manufactured No 230 Each



Gasket

Location	Loc Qty
FP010	19
57942	18
59627	1

MS21043-6 Purchased No 230 Each



NUT

Location	Loc Qty
ST301	726
112314	726

D3493-1 Manufactured No 260 Each



Washer

Location	Loc Qty
ST065	55
59127	25
60873	30

MS21083C8 Purchased No 260 Each



NUT

Location	Loc Qty
ST303	58
-113845	7
114934	51

Start Date: 8/03/10

Required Date: 8/12/10

Start Qty: 1.00

Required Qty: 1.00

19.0000 1 1



Loc Code

MM 10.08.11

726.0000 4 4



Loc Code

55.0000 2 2



Loc Code

10/8/10 SP

58.0000 1 2



Loc Code

10/8/10 SP

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Page 9

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Work Order ID: 60987

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

AN8C21A

Purchased No 260 Each

59.0000 2

Required Date: 8/12/10

Start Qty: 1.00

Required Qty: 1.00

BOLT

Location	Loc Qty
ST345	59
113558	19
114653	40

Loc Code

AN960C816L

Purchased No 260 Each

23.0000 1

WASHER

Location	Loc Qty
ST348	23
110584	20
111424	3

Loc Code

D3672-1

Manufactured No 230 Each

1,011.000 4

Phenolic Washer

Location	Loc Qty
ST077	993
51674	5
52505	988
ST117	18
34470	18

Loc Code

D2741

Manufactured No 260 Each

22.0000 1

Blade, 350 Skidtube

Location	Loc Qty
ST466	22
55905	2
57949	20

Loc Code

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Page 10

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector	
			Initial Chief Eng	Action Description Chief Eng	Sign & Date				

NOTE: Date & initial all entries

Picklist Print

Page 11

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Work Order ID: 60987

Parent Item: D350-636-011

Parent Item Name: Skidtube LH



D3532-1

Manufactured No

260 Each



Spacer

Location

Loc Qty

ST068

33

59426

11

60510

22

D3672-13

Purchased No

260 Each



Phenolic Washer

Location

Loc Qty

ST077

844

54363

844

Start Date: 8/03/10

Required Date: 8/12/10

Start Qty: 1.00

Required Qty: 1.00

33.0000

2



2

10/8/10

SP

Loc Code

2

844.0000

2



2

10/8/10

SP

Loc Code

2

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Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector	
			Initial Chief Eng	Action Description Chief Eng	Sign & Date				

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: 60987
Description: 350 Sbr/Tube/ revised Fig DT8150 + Process		Part Number: D350-6360 11
Inspection Dwg: D2750 Rev: F		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
112.48	± 0.030	112.43	✓			
56.150	± 0.010	56.150	✓			
49.210	± 0.010	49.210	✓			
20.865	± 0.010	20.865	✓			
12.990	± 0.010	12.990	✓			
4.330	± 0.010	4.330	✓			
4.330	± 0.010	4.330	✓			
4.330	± 0.010	4.330	✓			
22.440	± 0.010	22.440	✓			
0.500	± 0.010	0.500	✓			
0.500	± 0.010	0.500	✓			
<u>Detail K</u>						
3.150	± 0.010	3.150	✓			
1.180	± 0.010	1.180	✓			
1.180	± 0.010	1.180	✓			
<u>Section 66</u>						
17°	$\pm 1/2^\circ$	16.6°	✓			
0.550	± 0.020	0.550	✓			
2.480	± 0.010	2.480	✓			
<u>Section FF</u>						
41°	$\pm 1/2^\circ$	41°	✓			
49°	$\pm 1/2^\circ$	49°	✓			

Measured by: DP	Audited by: S	Prototype Approval:	N/A
Date: 10-8-3	Date: 10/08/11	Date:	N/A



Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	

DART AEROSPACE LTD		Work Order: 60987
Description:		Part Number: D350-636-011
Inspection Dwg:	Rev:	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
14.750	+/- 0.010	14.750	✓			
8.750	+/- 0.010	8.750	✓			
5.860	+/- 0.010	5.860	✓			
12.000	+/- 0.010	12.000	✓			
<u>Section E-E</u>						
23.5°	+/- 1/2°	24°	✓			
<u>Detail B</u>						
3.940	+/- 0.010	3.940	✓			
1.770	+/- 0.010	1.770	✓			
1.770	+/- 0.010	1.770	✓			
28°	+/- 1/2°	29°	✓			
<u>Detail A</u>						
0.84	+/- 0.030	0.780	✓			
2.770	+/- 0.010	2.770	✓			
<u>Detail D</u>						
3.150	+/- 0.010	3.150	✓			
1.180	+/- 0.010	1.180	✓			
1.180	+/- 0.010	1.180	✓			

Measured by: 	Audited by: 	Prototype Approval:	N/A
Date: 10-8-3	Date: 10/8/14	Date:	N/A
Rev	Date	Change	Revised by
A		New Issue	KJ/JLM
			Approved

QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D2750-041	350 SKIDTUBE ASSEMBLY, LH
	X			D2750-042	350 SKIDTUBE ASSEMBLY, RH
		X		D2750-043	350 SKIDTUBE ASSEMBLY, LH
			X	D2750-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1				D2750-1	SKIDTUBE WELDMENT, LH
	1			D2750-2	SKIDTUBE WELDMENT, RH
		1		D2750-3	SKIDTUBE WELDMENT, LH
			1	D2750-4	SKIDTUBE WELDMENT, RH
1		1		D3488-041	BLADE FITTING, LH
	1		1	D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
1	1	1	1	D3535-25	WEARSHOE
1	1	1	1	D3536-25	GASKET
3	3	3	3	D3537-1	WEARPAD
8	8	8	8	D3631-1	WASHER
1	1	1	1	D3791-1	WEARPLATE
1	1	1	1	D3793-1	WEARSHOE
1	1	1	1	D3793-3	WEARSHOE
1	1	1	1	D3794-1	GASKET
1	1	1	1	D3794-3	GASKET
38	38	38	38	ALS4-1032-225	INSERT (OR ALS7-1032-225, AKS4-1032-225, AELS-1032-225)
34	34	34	34	AN3C5A	BOLT
4	4	4	4	AN3C6A	BOLT
4	4	4	4	AN6C44A	BOLT
1	1	1	1	AN8C35A	BOLT
38	38	38	38	AN960C10L	WASHER
1	1	1	1	AN960C816L	WASHER
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER

GENERAL NOTES:

- MATERIAL: MAKE D2750-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
- FINISH:
ACID ETCH, ALONDE ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
- TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- UNITS: INCHES UNLESS OTHERWISE NOTED
- BREAK SHARP EDGES: N/A
- IDENTIFICATION: N/A
- WEIGHT: D2750-041/-042/-043/-044 = 26.5 LBS
- WELD PER DART QSI 004
- INSTALL ALS4-1032-225 INSERTS AFTER FINISH AS INDICATED. DRILL 'F' SIZE HOLES ($\phi 0.297$) FOR WEARSHOE INSERTS
- FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
MINIMUM YIELD TENSILE STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
- SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS.
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
POWDER COATING WITH MEK DEGREASER.
- SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL
- SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

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UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER NO. 40982
BL 10-5-03

RELEASED

F	INCORPORATE DSI 9413; QTY (3) D3537-1 WAS QTY (5) (ZN C8-1); D3791-1/-3 REPLACES D3535-13/-35 (ZN C8-1); D3794-1/-3 REPLACES D3536-13/-35 (ZN B8-1); ADD D3791-1 (ZN C8-1); WEARSHOE HOLES UNDER FWD/AFT SADDLE REMOVED (8 PL) WEARSHOE HARDWARE QTY UPDATED (ZN B8-1); D3488-041/-042 HARDWARE UPDATED (ZN C1-8, 9, 10, 11); ADD NOTE 12 AND 13 (ZN A5-1); REASON: REF. NCR 08-043	PH	08.07.16
E	CHANGE TO STAINLESS STEEL WEARPLATES; ADD RUBBER GASKETS, CHANGE INSERTS, ADD D3631-1; REMOVE QTY (38) NAS1515H3L; REMOVE QTY (10) NAS1515H8L; REMOVE D2741, QTY (2) AN960C816; REMOVE QTY (2) MS21083C8	CB	07.05.17
D	ADD HOLES AND SPACERS FOR APICAL FLOATS; INCORPORATE DEO 9133/9157	PH	06.01.05
C	ADD D2750-3/D2750-4; INCORPORATE D2738 AND D2740	CP	98.11.18
B	CHANGE MS24694-S293 TO AN8-16A	CP	98.09.01
A	NEW ISSUE	DS	98.04.16
REV.	DESCRIPTION	BY	DATE
DESIGN	RA	DART AEROSPACE USA, INC.	
DRAWN	RA	PORT HADLOCK, WA	
CHECKED	RA	DRAWING NO.	REV. F
MFG. APPR.	RA	D2750	SHEET 1 OF 11
APPROVED	RA	TITLE	SCALE
DE APPR.	RA	350 SKIDTUBE ASSEMBLY	NTS
DATE	08.07.16	COPYRIGHT © 1998 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OF COPIES OR COMMUNICATION TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

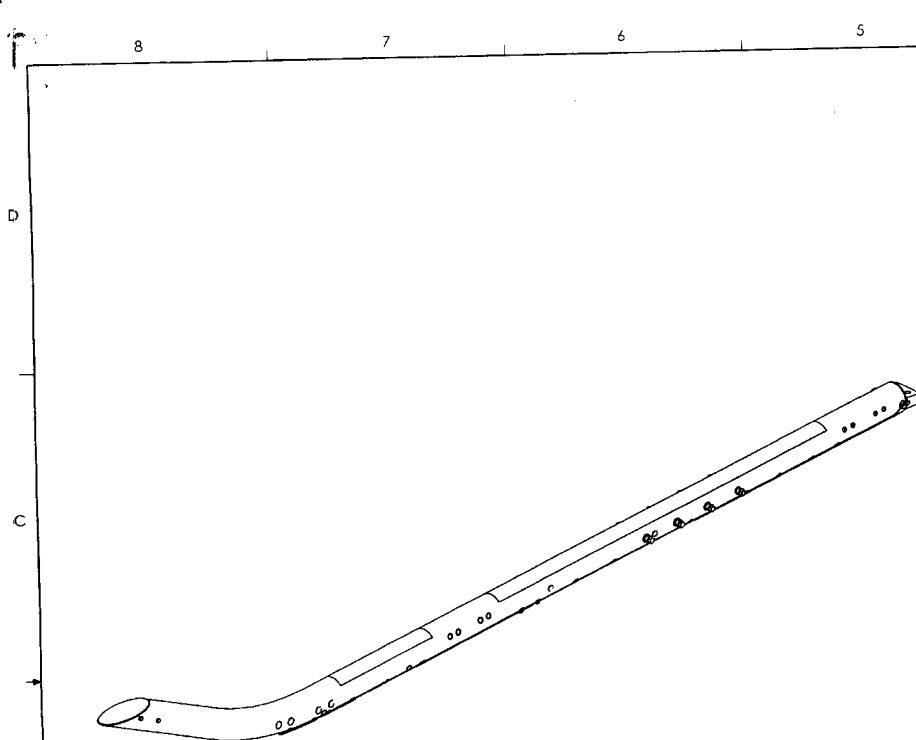
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

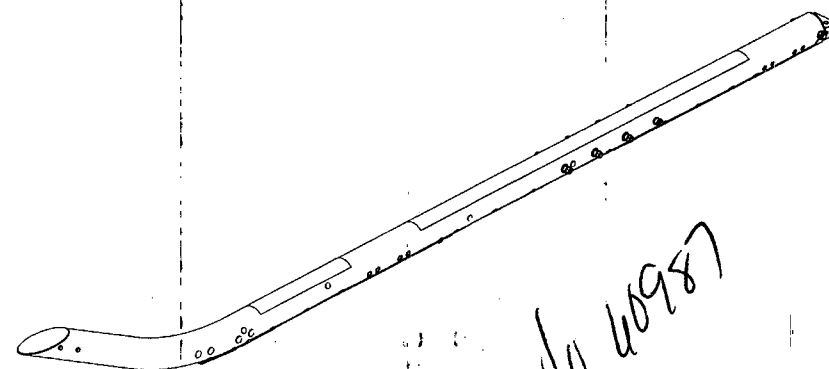
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D2750-041 350 SKIDTUBE ASSEMBLY, LH



D2750-042 350 SKIDTUBE ASSEMBLY, RH

RELEASED
08.07.16

DESIGN	PC	DART AEROSPACE USA, INC.	
DRAWN	AD	PORT HADLOCK, WA	
CHECKED	SA	DRAWING NO.	REV. F
MFG. APPR.	MA	D2750	SHEET 2 OF 11
APPROVED	MA	TITLE	SCALE
DE APPR.	MA	350 SKIDTUBE ASSEMBLY	NTS
DATE	08.07.16	<small>COPYRIGHT © 1998 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

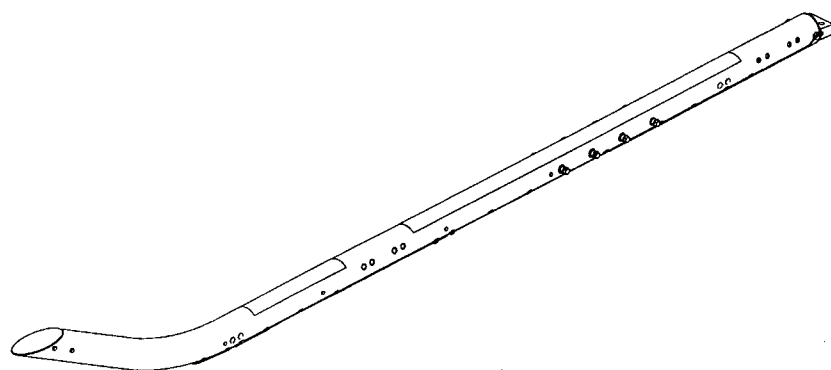
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

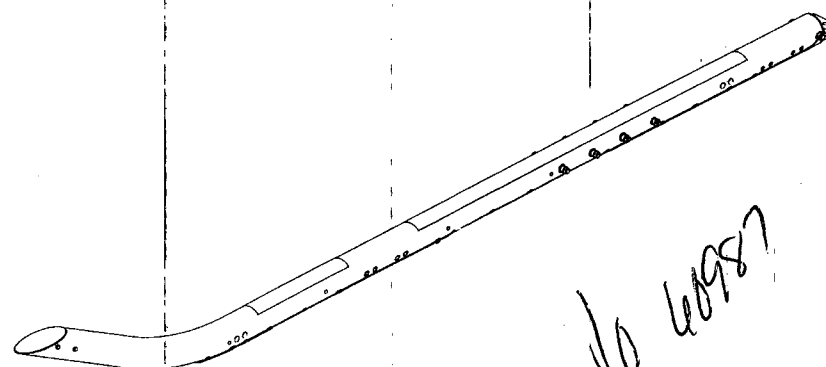
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D2750-043 350 SKIDTUBE ASSEMBLY, LH



D2750-044 350 SKIDTUBE ASSEMBLY, RH

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68-09-22/100

DESIGN		PORT HADLOCK, WA	
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MFG. APPR.	PO	D2750	SHEET 3 OF 11
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DE APPR.	NA	350 SKIDTUBE ASSEMBLY	NTS
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Dart Aerospace Ltd

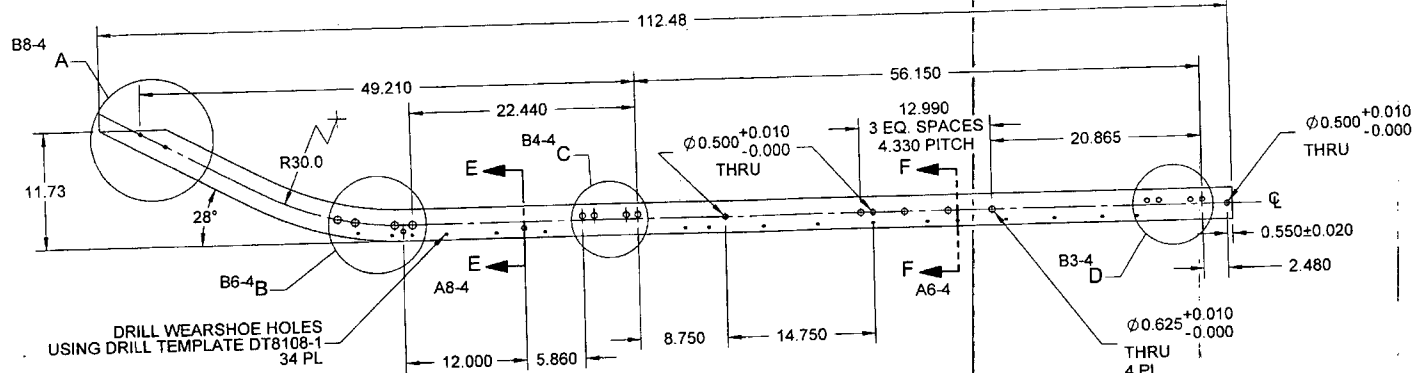
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

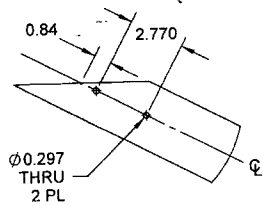
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

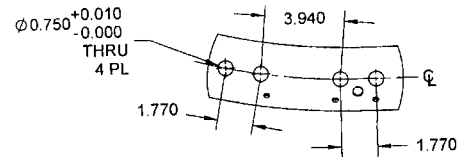
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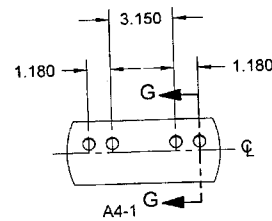
D2750-1 LH SKIDTUBE



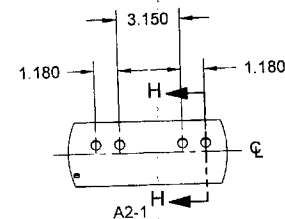
DETAIL A
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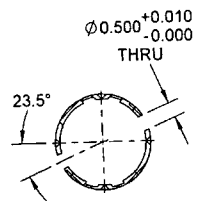
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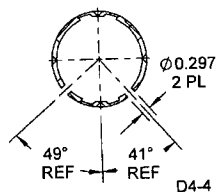
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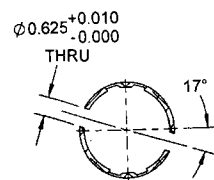
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SCALE 2X



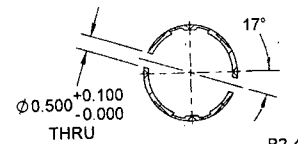
SECTION E-E
SCALE 3X, 2 PL



SECTION F-F
SCALE 3X, 17 PL



SECTION G-G
SCALE 3X, 4 PL



SECTION H-H
SCALE 3X, 4 PL

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DESIGN		DART AEROSPACE USA, INC.	
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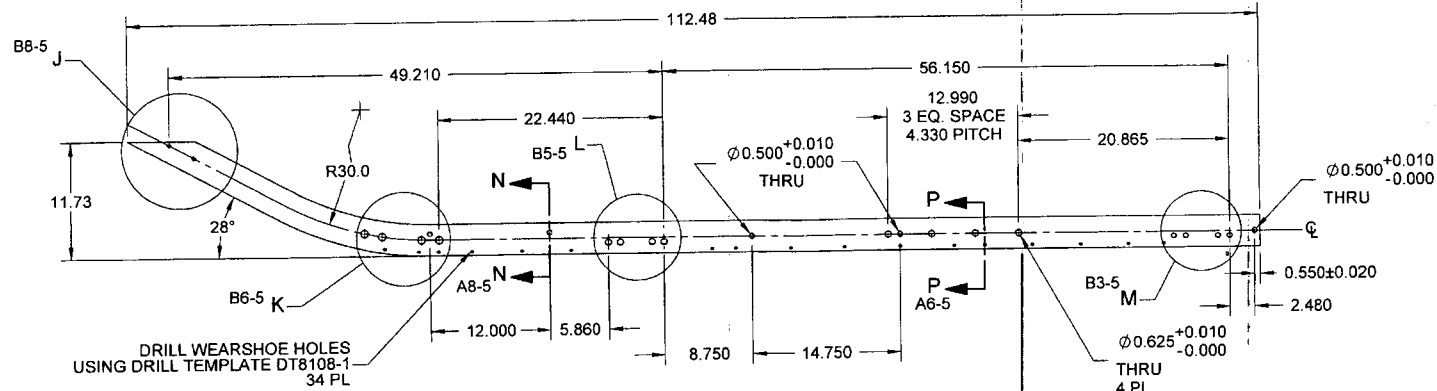
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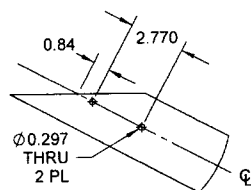
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

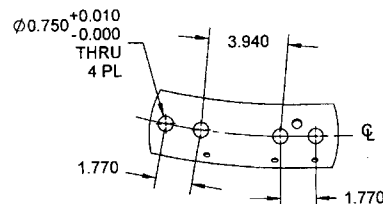
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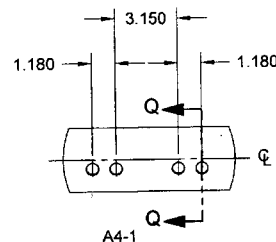
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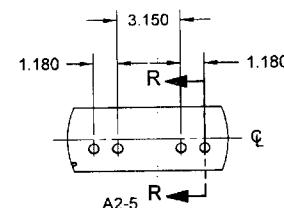
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SCALE 2X



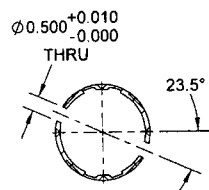
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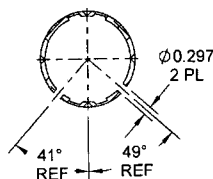
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SCALE 2X



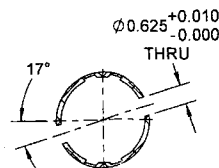
DETAIL M
SCALE 2X



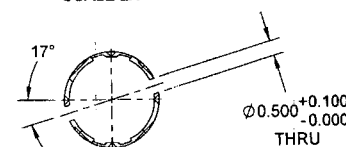
SECTION N-N
SCALE 3X, 2 PL



SECTION P-P
SCALE 3X, 17 PL



SECTION Q-Q
SCALE 3X, 4 PL



SECTION R-R
SCALE 3X, 4 PL

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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

8

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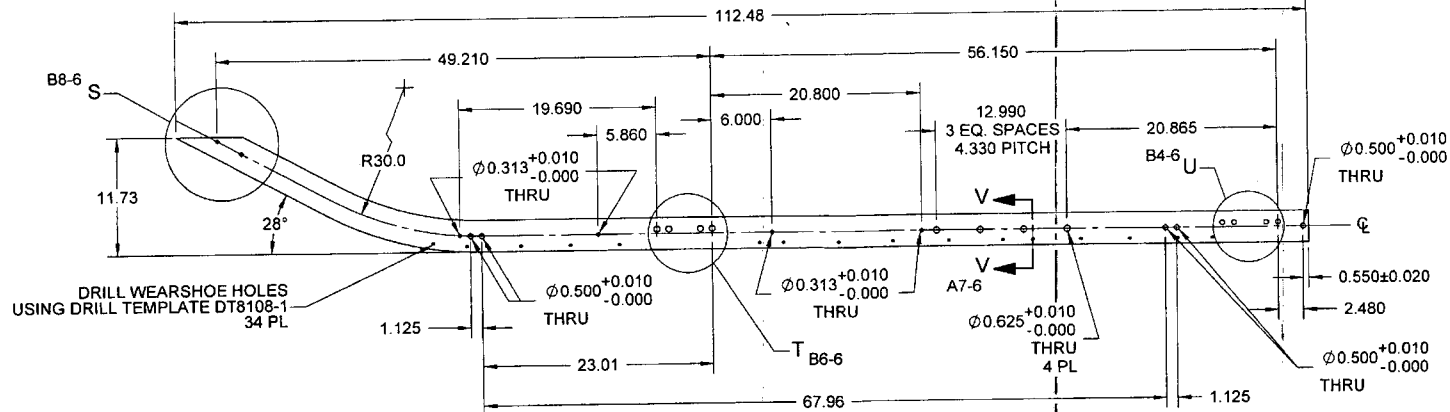
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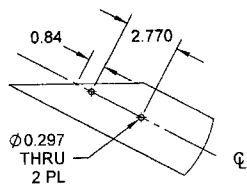
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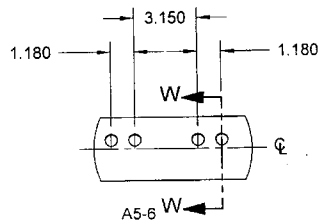
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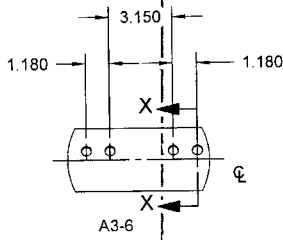
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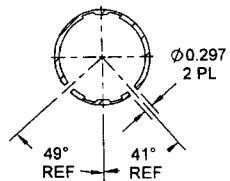
DETAIL S
SCALE 2X



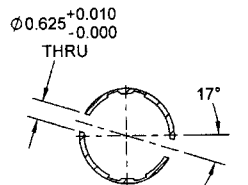
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SCALE 2X



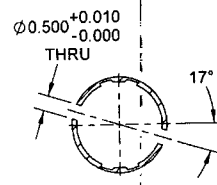
DETAIL U
SCALE 2X



SECTION V-V
SCALE 3X, 17 PL



SECTION W-W
SCALE 3X, 4 PL



SECTION X-X
SCALE 3X, 4 PL

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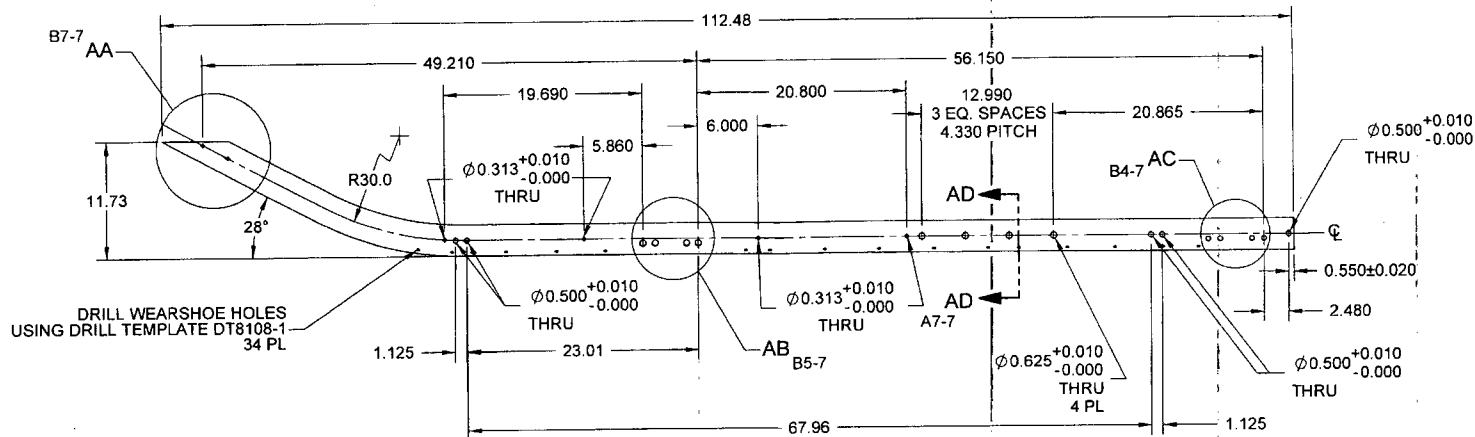
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

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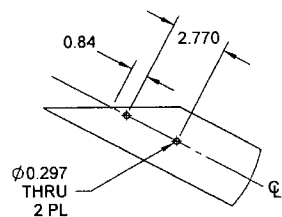
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

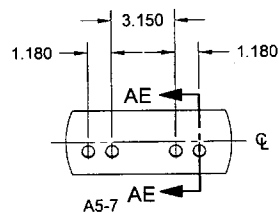
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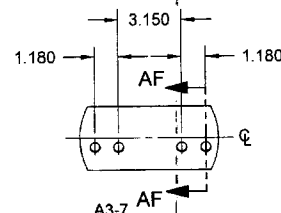
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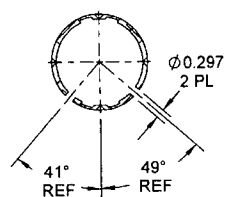
DETAIL AA
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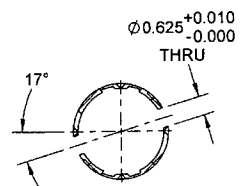
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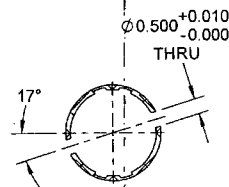
DETAIL AC
SCALE 2X



SECTION AD-AD
SCALE 3X, 17 PL



SECTION AE-AE
SCALE 3X, 4 PL



SECTION AF-AF
SCALE 3X, 4 PL

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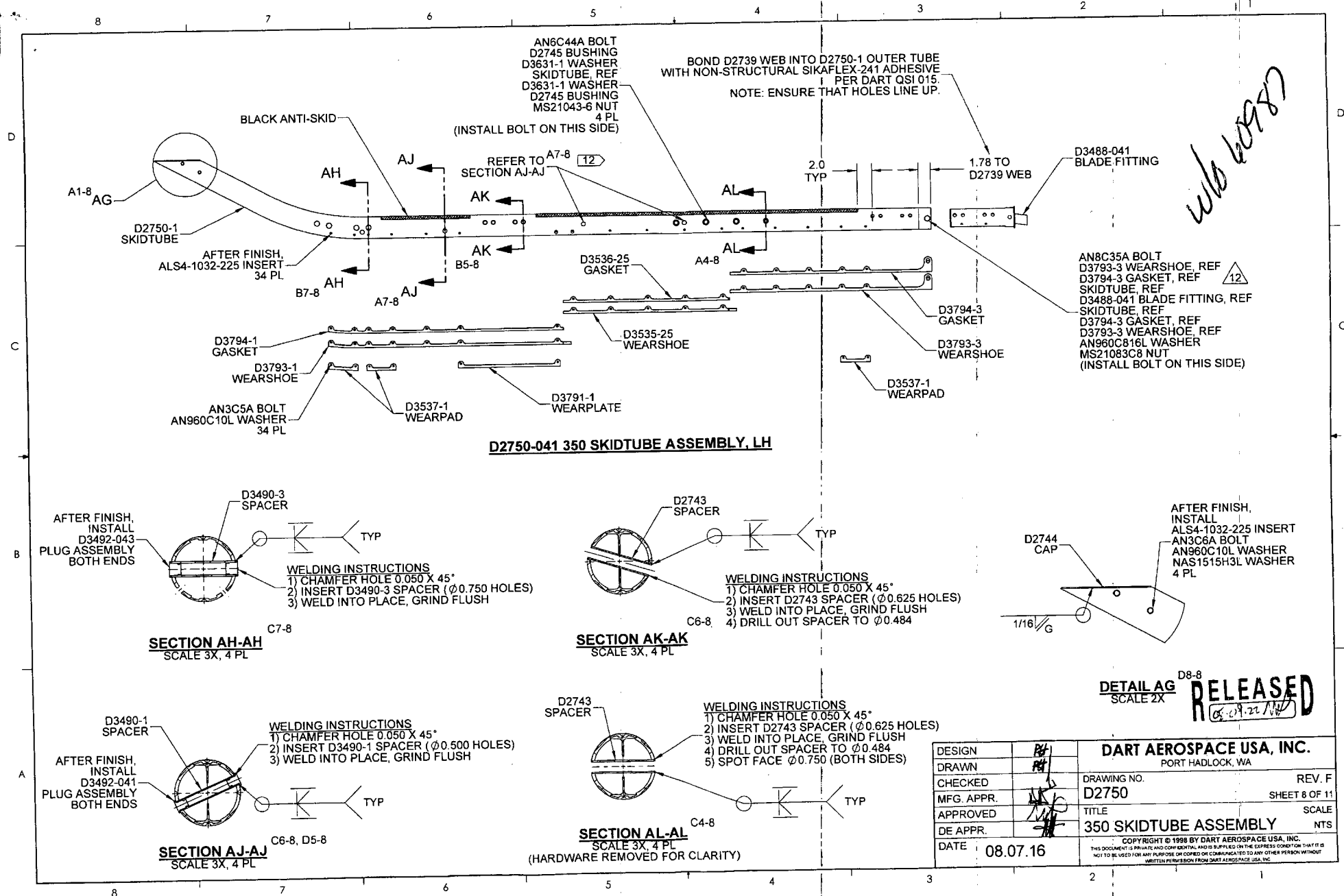
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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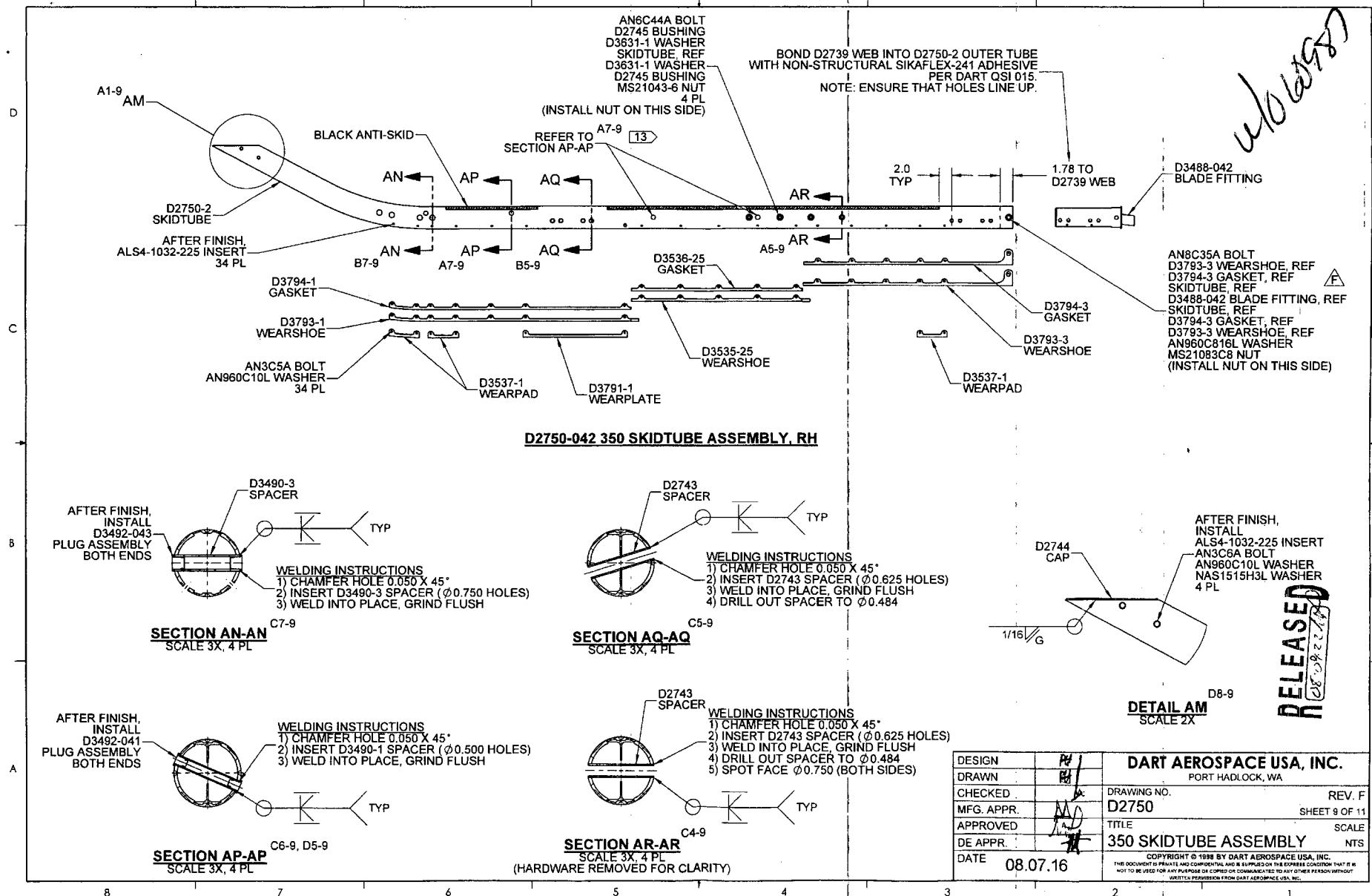
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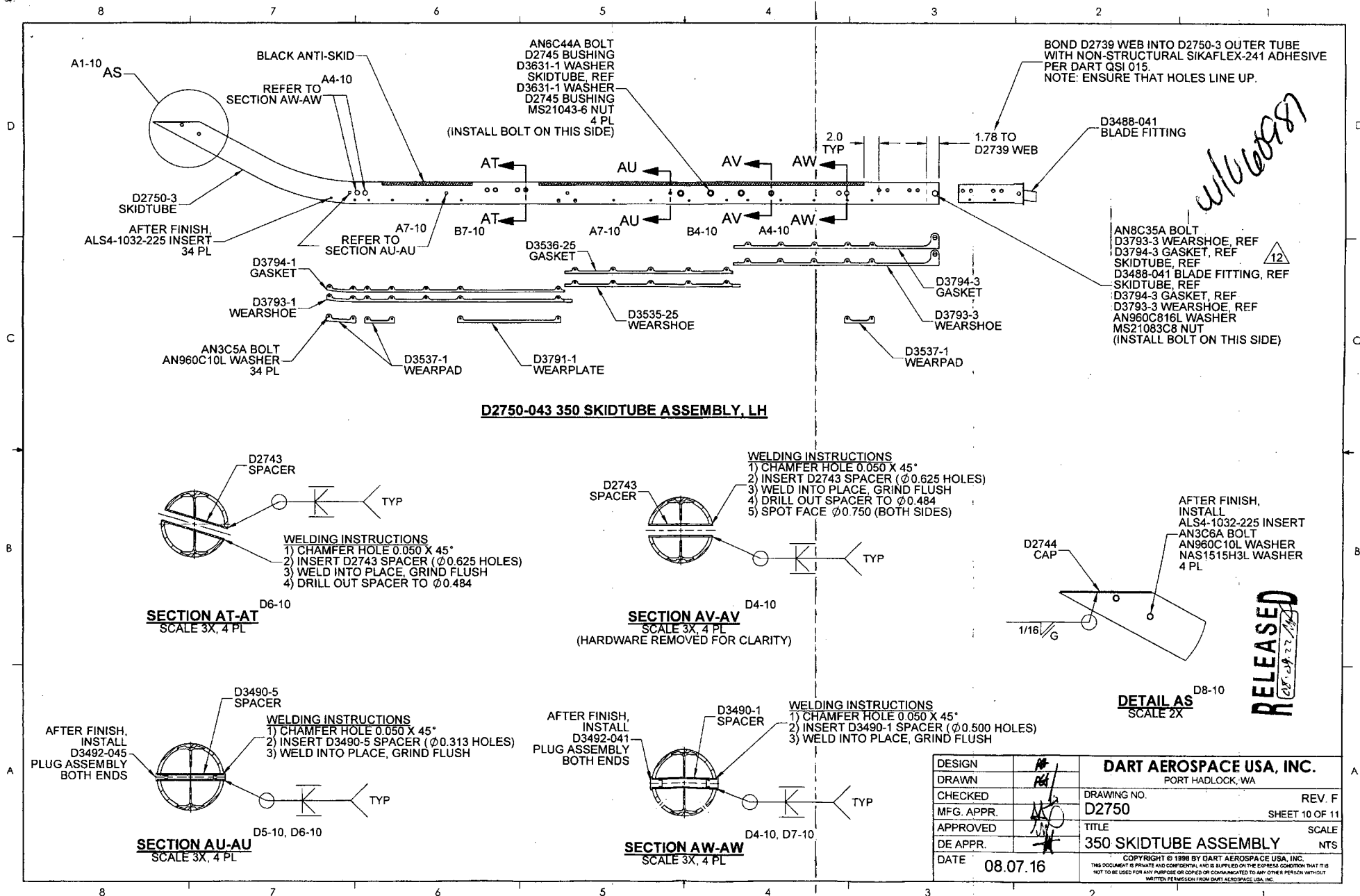
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

WORK ORDER CHANGES

PROCEDURE CHANGE

By

Date

Qty

Approval
Chief Eng /
Prod MgrApproval
QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:

WORK ORDER NON-CONFORMANCE (NCR)

DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

NO. 234

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: 59818
Part number: D350-626-011
Description: 320 skid tube
Welding Process: Tig[☒] Mig[]
Base material: Aluminium
Current: AC[☒] DC[]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[]
Penetration: pass[☒] fail[]

UNACCEPTABLE

Cracks: pass[☒] fail[]
Undercut: pass[☒] fail[]
Pin holes: pass[☒] fail[]
Overlap (cold lap): pass[☒] fail[]
Porosity (surface): pass[☒] fail[]
Coloration: pass[☒] fail[]

Qualifier Pch D.A. Date of Test Coupon 10-06-21
Welder Barclay Elliott Date of Test Coupon 10-06-21

The above named individual is qualified in accordance with AWS D17.1.2001 to weld